

## METHOD AND STRUCTURE OF IMPLEMENTING A SAFE POINTER

#### ABSTRACT OF THE DISCLOSURE

The present invention is directed to a transparent method of correctly handling improper use of pointers. During the execution of programs, pointers are occasionally returned to the program and, if treated improperly, may adversely effect system operation resulting in termination of the program, a nonresponsive system or invalid or erroneous results. The present invention defines a safe pointer which supports standard pointer operations and performs pointer checking on each pointer returned to the executing program to determine whether its use is consistent with the pointer type. If the operation will not cause any error, the operation is allowed. If the operation will cause an error or other undesirable operation, the operation is not permitted to be performed on the pointer and appropriate actions are taken.